

declared. It is submitted that an Interference should be established having Counts 1-26, with Claims 1-26 of U. S. Patent No. 4,948,052 and Claims 76-101 of this application, respectively, corresponding to the Counts.

Since this application Serial No. 932,470 has been involved in Interference No. 101,982 in which a decision has been rendered in applicant's favor, and applicant has been waiting to be informed that Ex parte prosecution has been resumed, applicant would like to be informed of the status of this application Serial No. 932,470.

It is noted that it appears that subject application and U. S. Patent No. 4,948,052 to Hunter were co-pending in the same Group Art Unit, and have filing dates which are two (2) years and approximately four (4) months apart, with applicant being the first to file. A declaration is submitted in accordance with 37 C. F. R. 1.608 (a) alleging a basis upon which applicant is entitled to judgment relative to the patentee.

In accordance with 37 C. F. R. 1.607 (a), Claims 76-101 are copied below with the terms of the claims applied to the structure shown in subject application: (See Figure 13 and lines 22-26 of Page 36, and Pages 37 and 38 for the "cam action biasing configuration") --

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(Figure 1, 13)

Claim 76. An oscillating sprinkler unit, comprising:  
a sprinkler head (output cap 108) mounted for rotation about a first axis;  
(ring gear 50) (gear cage 18)  
drive means comprising a carrier and alternately operable  
(gears 34 and 44) (gear cage 18)  
terminal gear means on said carrier and shiftable  
(gear cage 18)  
5 with said carrier to alternately engageable driving  
(ring gear 50)  
positions within said drive means for driving said  
(output cap 108)  
sprinkler head in alternate directions;  
(toggle device 64)  
shifting arm means pivotally moveable between alternate  
(projections 100 and 200)  
shifting positions by shoulder means carried by said  
(ring gear 50) (gear cage 18)  
10 drive means for shifting said carrier between said  
alternately engageable positions; and  
(31B) (gear cage 18) (39B, 127)  
cam means on said carrier, and follower means slideably  
(31B)  
engaging said cam means for biasing and retaining  
(gear cage 18)  
said carrier in a selected one of said alternately  
15 engageable positions until shifted therefrom by said  
(toggle device 64)  
shifting arm means.

Claim 77. The sprinkler unit of Claim 76 wherein  
(31B) (125, 35B) (39B, 127)  
said cam means comprises a cam lobe and said follower means  
engages said lobe on opposite sides thereof for biasing  
(gear cage 18)  
and retaining said carrier in a selected one of said  
5 alternately engageable positions.

Claim 78. The sprinkler of Claim 77 wherein said  
spring biased follower means comprises a generally L-shaped  
(127 and angled end)  
leaf spring.

Claim 79. The sprinkler of Claim 78 wherein said cam  
(125, 35B) (projecting member 31B)  
lobe is on said carrier and said spring biased follower  
(39B, 127) (in base member 4)  
means is mounted on adjacent housing structure.

Claim 80. The sprinkler of Claim 79 wherein said  
(125, 35B) (Fig. 13)  
cam lobe is of a substantially symmetrical V-shape; and  
said spring biased follower means comprises a  
(127 and angled end)  
generally L-shaped leaf spring.

Claim 81. The sprinkler of Claim 77 wherein said  
(125, 35B) (projecting member 31B)  
cam lobe is on said carrier and said spring biased  
(39B, 127) (in base member 4)  
follower means is mounted on adjacent housing structure.

Claim 82. The sprinkler of Claim 81 wherein:  
(26)  
drive means comprises a drive gear driven by a drive  
motor and mounted for rotation about a second axis  
spaced from said first axis;  
(gear cage 18)  
5 said carrier is mounted for pivotal movement about said  
second axis; and (toggle device 64)  
said shifting arm means is mounted for pivotal movement  
about said first axis.

Claim 83. The sprinkler unit of Claim 82 wherein:  
said carrier<sup>(gear cage 18)</sup> comprises a yoke<sup>(22)</sup> surrounding said first axis  
and said shifting arm means<sup>(toggle device 64)</sup> engages said carrier  
through lost motion means<sup>(60, 88)</sup> comprising shoulder means  
5 on the opposite side of said first axis from said  
second axis.

Claim 84. The sprinkler of Claim 77 wherein said  
cam lobe<sup>(125, 35B)</sup> is of a substantially symmetrical V-shape; and<sup>(Fig. 13)</sup>  
said spring biased follower means comprises a generally  
L-shaped leaf spring<sup>(127 and angled end)</sup>.

Claim 85. The sprinkler of Claim 76 wherein:  
drive means comprises a drive gear<sup>(26)</sup> driven by a drive motor  
and mounted for rotation about a second axis spaced  
from said first axis;  
said carrier<sup>(gear cage 18)</sup> is mounted for pivotal movement about said  
5 second axis; and  
said shifting arm means<sup>(toggle device 64)</sup> is mounted for pivotal movement  
about said first axis.

Claim 86. The sprinkler unit of Claim 76 wherein:  
said carrier<sup>(gear cage 18)</sup> comprises a yoke<sup>(22)</sup> surrounding said first  
axis and said shifting arm means<sup>(toggle device 64)</sup> engages said  
carrier through lost motion means<sup>(60, 88)</sup> comprising  
5 shoulder means on the opposite side of said first  
axis from said second axis.

(Figure 1, 13)  
Claim 87. An oscillating sprinkler unit, comprising:  
(output cap 108)  
a sprinkler head, mounted for rotation about a first axis;  
(page 12, lines 20, 21)  
a drive motor;  
(gears 34, 32, 30, 26, 42, 44)  
a reversible gear train, for drivingly connecting said  
(output cap 108)  
5 drive motor to said sprinkler head, for driving said  
(output cap 108)  
sprinkler head, in alternate directions, comprising a  
(ring gear 50) (output cap 108)  
final drive gear, connected to said sprinkler head,  
(gear cage 18)  
shiftable drive means comprising a carrier, and  
(gears 34 and 44)  
alternately operable terminal gear means, on said  
(gear cage 18)  
10 carrier, shiftable with said carrier to alternately  
(ring gear 50)  
engageable positions with said final drive gear, for  
(output cap 108)  
driving said sprinkler head, in alternate directions;  
(toggle device 64)  
shifting arm means, pivotally mounted adjacent said  
(gear cage 18)  
carrier, and moveable between alternate shifting  
(projections 100 and 200)  
15 positions by engagement with shoulder means, carried  
(60, 88)  
by said gear train, and lost motion means, for  
(toggle device 64)  
connecting said shifting arm means, with said  
(gear cage 18) (gear cage 18)  
carrier, for shifting said carrier, between said  
alternately engageable positions upon movement of  
(toggle device 64)  
20 said shifting arm means, between said alternate  
shifting positions; and  
(31B) (gear cage 18)  
cam means, on said carrier, slideably engageable by  
(39B, 127)  
adjacent biasing follower means, for biasing and  
(gear cage 18)  
maintaining said carrier, in a selected one of said  
25 alternately engageable positions until shifted  
(toggle device 64)  
therefrom by said shifting arm means.

Claim 88. The sprinkler unit of Claim 87 wherein  
said cam means (31B) comprises a cam lobe (125, 35B) and said adjacent  
biasing follower means comprises spring biased follower  
(39B, 127)  
means engaging said lobe on opposite sides thereof.

Claim 89. The sprinkler of Claim 88 wherein said  
spring biased follower means comprises a generally  
(127 and angled end)  
L-shaped leaf spring.

Claim 90. The sprinkler of Claim 89 wherein said  
(125, 35B) (projecting member 31B) (127 and angled end)  
cam lobe is on said carrier and said L-shaped leaf spring  
(in base member 4)  
biased is mounted on adjacent housing structure.

Claim 91. The sprinkler of Claim 88 wherein said  
(125, 35B)  
cam lobe is on said carrier and said spring biased follower  
(39B, 127) (in base member 4)  
means is mounted on adjacent housing structure.

Claim 92. The sprinkler of Claim 88 wherein said  
(125, 35B) (Fig. 13)  
cam lobe is of a substantially symmetrical V-shape and  
said spring biased follower means comprises a generally  
(127 and angled end)  
L-shaped leaf spring.

Claim 93. The sprinkler of Claim 92 wherein:  
reversible gear train comprises a drive gear<sup>(26)</sup> driven by  
said drive motor and mounted for rotation about a  
second axis spaced from said first axis;  
5 said carrier<sup>(gear cage 18)</sup> is mounted for pivotal movement about  
said second axis; and  
said shifting arm means<sup>(toggle device 64)</sup> is mounted for pivotal movement  
about said first axis.

Claim 94. The sprinkler unit of Claim 93 wherein:  
said carrier<sup>(gear cage 18)</sup> comprises a yoke<sup>(22)</sup> surrounding said first  
axis and said shifting arm means<sup>(toggle device 64)</sup> engages said  
carrier through said lost motion means<sup>(60, 88)</sup> comprising  
5 shoulder means on the opposite side of said first  
axis from said second axis.

Claim 95. The sprinkler of Claim 87 wherein:  
said reversible gear train comprises a drive gear<sup>(26)</sup>  
driven by said drive motor and mounted for rotation  
about a second axis spaced from said first axis;  
5 said carrier<sup>(gear cage 18)</sup> is mounted for pivotal movement about  
said second axis; and  
said shifting arm means<sup>(toggle device 64)</sup> is mounted for pivotal movement  
about said first axis.

Claim 96. The sprinkler unit of Claim 87 wherein:  
said carrier (gear cage 18) (22) comprises a yoke surrounding said first  
axis and said shifting arm means (toggle device 64)  
(60, 88) engages said  
carrier through said lost motion means comprising  
5 shoulder means on the opposite side of said first  
axis from said second axis.

Claim 97. The sprinkler of Claim 96 wherein said  
cam lobe (125, 35B) is of a substantially symmetrical V-shape; (Fig. 13)  
said spring biased follower means comprises a generally  
L-shaped leaf spring. (127 and angled end)

Claim 98. An oscillating sprinkler unit, (Figure 1, 13)  
(2) comprising:  
a housing (2) having a generally cylindrical configuration  
with a central axis, an inlet (95) at a lower end for  
attachment to a source of water and an outlet (8) at  
5 an upper end;  
(output cap 108)  
a sprinkler head mounted at said upper end for rotation  
about said central axis;  
(page 12, lines 20, 21)  
a drive motor mounted in said housing for driving said  
sprinkler head;  
10 a shiftable gear train (34, 32, 30, 26, 42, 44) comprising terminal drive gear  
(gears 34 and 44) (ring gear 50)  
means including an internal gear connected to said  
(output cap 108)  
sprinkler head, shiftable means for alternatively  
shifting said terminal drive gear means (gears 34 and 44)  
alternatively



(ring gear 50)  
into engagement with said internal gear▲for  
(output cap 108)  
15 driving said sprinkler head▲in alternate directions;  
(12)  
said shiftable drive means comprising a drive shaft▲  
(page 12, lines 20, 21)  
driven by said drive motor▲and operatively  
(26)  
connected to a drive gear▲mounted for rotation  
about a second axis offset from said first axis;  
(gear cage 18)  
20 a pivoting carrier▲mounted for pivotal movement about  
said second axis;  
(34) (gear cage 18)  
one of said terminal gear means▲mounted on said carrier▲  
on one side of said second axis, and the other of  
(44) (gear cage 18)  
said drive gears▲mounted on said carrier▲on the  
25 other side of said second axis;  
(toggle device 64) (gear cage 18)  
a shifting arm▲mounted adjacent said carrier▲for pivotal  
movement about said first axis;  
(60, 88) (toggle device 64)  
lost motion means▲disposed between said shifting arm▲  
(gear cage 18)  
and said carrier▲for connecting said shifting arm  
30 to said carrier for shifting said terminal drive  
(gears 34 and 44)  
gear means▲to alternately engageable positions;  
(90, 92)  
first over-center biasing means▲for maintaining said  
(toggle device 64)  
shifting arm means▲in a selected one of said  
alternately shifting positions; and  
(31B) (gear cage 18)  
35 over-center cam means▲on said carrier▲slideably  
engageable by adjacent spring biased follower  
(39B, 127) (gear cage 18)  
means▲for biasing and maintaining said carrier▲  
in a selected one of said alternate engageable  
positions.

Claim 99. A sprinkler unit according to Claim 98  
wherein:

5 said over-center cam means comprises a dual faced cam (35B, 125)  
and said follower means comprises a generally  
(127 and angled end) (gear cage 18)  
L-shaped spring disposed between said carrier and  
(base member 4) (toggle device 64)  
said housing for biasing said shifting arm to said  
one of said alternately shifting positions.

Claim 100. The sprinkler of Claim 99 wherein said  
(35B, 125) (projecting member 31B) (39B, 127)  
dual faced cam is on said carrier and said spring is  
(in base member 4)  
mounted on adjacent housing structure.

Claim 101. The sprinkler of Claim 100 wherein said  
cam has a lobe that is of a substantially symmetrical  
(Fig. 13)  
V-shape; and  
said spring comprises a generally L-shaped leaf spring (127 and angled end)

It would be appreciated if an INTERFERENCE could  
be set up as soon as possible.

A transmittal letter is enclosed, authorizing  
payment of any additional fees to be charged to Deposit  
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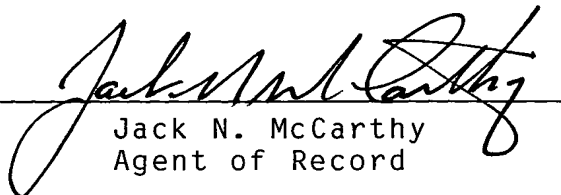
Applicant must repeat that this application has been in Interference No. 101,982. This Interference No. 101,982 involved another patent of Edwin J. Hunter.

Respectfully submitted,

CARL L. C. KAH, JR.

JNMC:jco

By

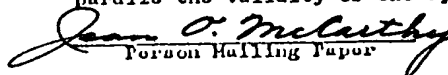
  
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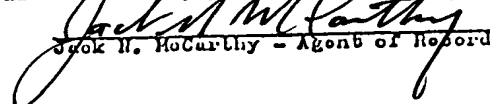
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I hereby verify that this amendment, including any drawing referred to therein, is being deposited with the U. S. Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D. C. 20231, and this statement was made with the knowledge that willful false statements and the like so made are punishable by fine and/or imprisonment under 18 USC 1001 and may jeopardize the validity of the application or any patent issuing thereon.

  
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